

**To:** Lam, Alvin (DEQ)[LAMA@michigan.gov]  
**From:** Schmidt, James W - DNR  
**Sent:** Fri 4/8/2016 1:31:23 PM  
**Subject:** RE: question regarding WQBEL calculations for Aquila Back Forty project

This is exactly what I was looking for, thank you.

Based on this, I've got no problems with the proposed limits. The proposed limits based on Michigan's standards appear to be in compliance with Wisconsin's water quality standards as well. That's the message I'll pass on to my superiors here. Thanks again. - Jim

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## James W. Schmidt

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**"W for Water"**

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**From:** Lam, Alvin (DEQ) [mailto:LAMA@michigan.gov]  
**Sent:** Thursday, April 07, 2016 12:23 PM  
**To:** Schmidt, James W - DNR  
**Cc:** Hill, Jonathan R - DNR; Lipsey, Tamara (DEQ)  
**Subject:** RE: question regarding WQBEL calculations for Aquila Back Forty project

Jim,

The lead limits are actually based on the federal categorical standards (treatment based) because they are more restrictive than the water quality based limits. Attached is a copy of the treatment technology based limit recommendations memo, toxics water quality based limit recommendations memo, and the fact sheet associated with the toxics limits development. I believe you will find most of the background information you need from these documents. If you still have questions please contact Tamara Lipsey at [lipseyt@michigan.gov](mailto:lipseyt@michigan.gov) or 517-284-5545. Thanks.

Al

**From:** Schmidt, James W - DNR [<mailto:JamesW.Schmidt@wisconsin.gov>]  
**Sent:** Thursday, April 07, 2016 12:57 PM  
**To:** Lam, Alvin (DEQ)  
**Cc:** Hill, Jonathan R - DNR; Schmidt, James W - DNR  
**Subject:** question regarding WQBEL calculations for Aquila Back Forty project

Alvin, Jonathan Hill asked me to take a look at the draft permit for this facility to make sure the proposed discharge to the Menominee River meets Wisconsin's water quality standards as well as your own in Michigan. I'm the WQBEL calculator for industrial and municipal permits in northeastern Wisconsin so I'm the one who would normally look at something like this. Basically, I've been working for Wisconsin DNR long enough that I've helped write many of the water quality standards rules here along with doing evaluations such as this to implement the rules.

Anyway, I looked at the information you sent Jonathan (and then forwarded on to me) and was also looking at the informational documents on this facility on your state's MIWaters site. The document list was very helpful, but I couldn't exactly find what I needed to complete my review. Here's the situation:

I went through the substances for which monthly average limits were proposed, namely lead and mercury. Essentially, I generate the kind of spreadsheet from scratch that I would normally use for my evaluations, putting in stream and effluent flows I could calculate limits based on full assimilative capacity of the river. Recognizing that this is a new discharge, I see the permit considered antidegradation, which is fine. Mostly as a result of the differences between Wisconsin's antidegradation rule and Michigan's, Wisconsin's limits come out a bit less restrictive for the monthly lead limit. EPA has already petitioned Wisconsin to change that part of our antideg rules, which is beyond the scope of my discussion here, but the point is that

based on the rules as they exist right now, Wisconsin's lead limit is less restrictive than Michigan's, meaning your proposed limit is OK with us. For mercury, since it's a bioaccumulative chemical of concern and a new discharge to the Great Lakes basin, the proposed limit of 1.3 ng/L equals the criterion, which is exactly how we handle this sort of thing as well. That leaves me with the daily maximum limits based on acute toxicity and that's why I've contacted you here.

Again, I realize Michigan and Wisconsin have different water quality criteria for metals, but my problem is that I can't tell from the documentation what hardness you used to generate acute criteria --- and therefore I can't tell how the daily limits were calculated or what the basis for them is just because that isn't really a part of the basis memo for this facility. I even tried using trial and error to "guess" at a hardness but couldn't find a number that matched all or even many of the criteria. Again, this could be due to different acute criteria in our states. So basically, I'm just wondering if there is some sort of document available to show how the daily maximum limits were actually calculated (what criteria were used, the hardness used to generate those criteria, and if any dilution considerations were made). If a summary like this exists, please make a copy available to me so I can complete my review of the proposed limits to see if the standards of both states are being met.

If an issue comes up, I'm prepared to generate a document that shows what we would calculate as limits based on Wisconsin's rules, but if the limits I generate all exceed the proposed permit limits here, then I've got no concerns with that (and I can then pass that message on to my superiors in the WDNR offices).

Thank you for any information you can provide on this, and if you need to contact me then you can reach me using the information below. - Jim

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